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Impact of Node Density and Transmission Range on the Performance of OLSR and DSDV Routing Protocols in VANET City Scenarios

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Abstract : Vehicular Ad hoc Network (VANET) is a special case of Mobile Ad hoc Network (MANET) used to establish communications and exchange information among nearby vehicles and between vehicles and nearby fixed infrastructure. VANET is seen as a promising technology used to provide safety, efficiency, assistance and comfort to the road users. Routing is an important issue in Vehicular Ad Hoc Network to find and maintain communication between vehicles due to the highly dynamic topology, frequently disconnected network and mobility constraints. This paper evaluates the performance of two most popular proactive routing protocols OLSR and DSDV in real city traffic scenario on the basis of three metrics namely Packet delivery ratio, throughput and average end to end delay by varying vehicles density and transmission range.

Keywords : DSDV, OLSR, quality of service, routing protocols, VANET
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